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Interviews with and observations of experienced and inexperienced personnel were conducted to determine their coping strategies before, during, and after their work with the bodies of people who had died violently. Avoidance, denial, and social support from the work group and spouse appeared to facilitate coping. The implications of these findings for therapeutic intervention are discussed.

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HANDLING BODIES AFTER VIOLENT DEATH: Strategies for Coping

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Regardless of profession or past experience, exposure to violent death is a significant psychological stressor that can make victims of those who assist after a disaster (Miles, Demi, & Mostyn-Aker, 1984). For example, about one-third of the volunteers who recovered bodies from the Mount Erebus air crash in Antarctica initially experienced transient problems of moderate to severe intensity; at three months, about one-fifth still reported high levels of stress-related symptoms (Taylor & Frazer, 1982). For the body handlers from the Jonestown, Guyana, mass suicide, youth, inexperience, and the degree of exposure to the bodies were associated with high levels of emotional stress eight months after the experience (Jones, 1985).

The specific psychological risks of handling the dead—how individuals and groups prepare for, behave during, and respond after such events—has received little scientific scrutiny. Ursano and McCarroll (1990) reported that the profound sensory stimulation associated with the bodies, the shock

of unexpected events associated with the dead, identification or emotional involvement with the dead, and handling children's bodies were significant stressors. In the present study, on-site observations and interviews with individuals who worked with dead bodies were conducted to determine significant stressors and how the workers coped with them. The methods of coping with these stressors are presented here.

METHOD

The data for this study are qualitative and consist of the observations and interviews conducted by the authors following three recent major disasters: the Gander, Newfoundland, air crash of 1985, in which 256 people were killed; the turret explosion aboard the USS Iowa in 1989, in which 47 sailors were killed; and the crash of United Airlines Flight 232 in Sioux City, Iowa, in 1989, in which 112 people died.

About 400 primarily young, enlisted air force personnel following the Gander crash, and about 100 persons following the turret

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explosion aboard the USS *Iowa* were observed on site and interviewed informally at the Dover Air Force Base mortuary. About 150 persons at Sioux City, Iowa, were also observed and interviewed. These populations were about 70% male, of a wide range of ages, with an average age of about 24. About half were married and all had at least a high-school education.

In addition, members of occupational groups that are frequently exposed to violent death participated in semistructured, face-to-face group interviews: eight male forensic pathologists, 11 male fire fighters, five male and one female police officers, seven male and one female emergency medical technicians, and eight male military officers or noncommissioned officers. A psychiatrist and a funeral director, both consultants to the Red Cross in disaster relief, were interviewed individually.

Participants were asked to describe the nature of their jobs, their experiences, and their observations on the stresses of handling dead bodies. They were asked the following questions: "What types of bodies are most troublesome to you?" "What is it about dead bodies that affects your functioning or that of others you have observed?" "Have you seen people who were unable to function in the field, and what happened?" "How do you get yourself

through rough spots?" "How long does it take and how do you prepare yourself to go back to work after handling the dead?" All interviews were voluntary and lasted one to three hours, depending on the size of the group and the time available. The interviewers and observers were three psychologists and one psychiatrist, all in their late 30s or 40s at the time of the interviews.

RESULTS

Stressors and coping strategies are reported by the period: before, during, and after exposure to the bodies (see TABLE 1).

Before Exposure

The time before exposure to the dead is known to be stressful (Corenblum & Taylor, 1981; Fenz & Jones, 1972). The anticipation of one's reaction to the dead and the lack of information on the nature of the tasks to be performed were the most frequently reported stressors during this period. People often feared their own reactions to the bodies and questioned their ability to cope. When they knew they were soon to be sent on an operation, even experienced individuals reported anticipatory stress. Although they thought that minimal psychological preparation was necessary, they sometimes reported nervousness when they did not know what sorts of trauma to

Table 1
STRESSORS AND COPING STRATEGIES

PERIOD	STRESSOR	STRATEGY
Before	Anticipation (inexperienced workers)	Practice drills Prebriefing
	Anticipation (experienced workers)	Information on tasks required Social and professional support Information on tasks required
During	Multiple sensory stimuli from bodies	Avoidance strategies: masking odors, wearing gloves, averting gaze
	Handling victims' personal effects Dissatisfaction with own performance Strong personal feelings (inexperienced workers)	Increase emotional distance Breaks, sleep, food Pairing with more experienced workers
After	Need for a transitional event	Informational postevent briefing
	Strong personal feelings Fatigue	Support from family and work unit Rest and time off work

expect, what condition the bodies were in, or how difficult it would be to extract or identify the bodies. Social and professional support were recognized as being essential. One forensic pathologist said that when he had to go on a mission on which he was the only professional, he had nightmares the night before, but when he knew he was going with other professionals, he slept soundly. Practice drills were reported to be helpful in learning the tasks of an actual event. Such a practice drill had been performed by the Sioux City disaster response personnel about two years before the airplane crash at their airport, and participants later said that this drill had been invaluable.

Volunteers were unanimous in saying that before they enter a disaster scene or a mortuary, workers should be "told the worst" so as to minimize the surprises. One supervisor described his use of a sequence of short, staged briefings in which he became more explicit as he moved from an initial assembly area to the actual work site.

During Exposure

Individuals defend against the multiple sensory stimuli associated with the dead. Among these are the sight of bodies, including those that are grotesque, burned, or mutilated; the sounds that occur during autopsy, such as heads hitting tables and saws cutting bone; the smells of decomposing flesh and burned bodies; and the tactile stimuli experienced as bodies are handled throughout the process. All this can be described as sensory overload. The smell was usually described as the most troublesome, and many people used such avoidance strategies as attempting to mask odors by burning coffee, smoking cigars, working in the cold, and using such fragrances as peppermint oil and orange oil inside surgical masks (Cervantes, 1988). Most, however, reported that these strategies did not help because olfactory adaptation occurred. Gloves, often worn by personnel who touched bodies or body parts, decreased the tactile contact with the remains, which was described

as particularly difficult with decomposed and burned bodies.

The appearance of bodies with few visible signs of death was more bothersome to some people than were damaged bodies, which could often be viewed as nonhuman. Supervisors advised, "Don't think of it as a body; think of it as a job." An inexperienced person was heard to say, "He can't be dead; he hardly has a scratch on him." Experienced people advised their younger co-workers not to look at faces.

Some volunteers, even those who had experience, described the sight of a large number of bodies as overwhelming. One man reported, "The bodies just kept coming and coming. It felt like you were surrounded." The stress of this experience was reduced when frequent breaks were taken or visual contact with bodies was reduced with such strategies as seats that faced away from the bodies or partitions between the identification stations.

Even for experienced personnel, the sight of the unexpected could shock or surprise. A pathologist reported that he felt extreme discomfort at the sight of a body whose shoulder girdle had been cleanly sliced by a helicopter blade. When he first saw the body, he did not recognize what had happened, but when he did so, he wondered whether the individual had felt the cut, suffered, or lived long after the injury. Even a nonhuman body can produce discomfort: for example, V. Pine of the Department of Sociology State University of New York, New Paltz, reported (*personal communication, November 16, 1988*) observing a worker who, finding a dead pet dog in the luggage compartment of a commuter aircraft crash, said he could not handle it and was distressed because he knew others would not take him seriously.

Supervisors recommended that people increase the "emotional distance," or disidentification, between themselves and the bodies so as to decrease the stress of the experience. Disidentification is a process discussed in child development literature by

which the child separates and distinguishes himself or herself from the parent of the opposite sex. The process of identification, or "emotional involvement," with the dead body seems to occur naturally, for example, when a person says, "It could have been me." For someone with children about the same age as a deceased child, the thought nearly always occurred that "this could have been my child." The handling of personal effects frequently led to identification with the deceased and the survivors. Seeing pictures of the deceased or their families or reading or hearing their names on television or in a newspaper heightened the distress. It was reported that, during the Vietnam War, handling the personal effects of the dead was more stressful for soldiers than was working in the mortuary (*T. Rexrode, Director, U.S. Army Mortuary Affairs Center and School, Ft. Lee, Va., personal communication, August 19, 1988*).

Overdedication, particularly the tendency to go on working under conditions that one would not normally tolerate, was frequently reported during a disaster. People would often say, "I didn't do enough." Many worked up to 20 hours per day and finally had to be ordered from the area. Such overdedication produces physical fatigue, poor sleep, and irregular eating schedules and it requires more time to recuperate. Workers should be allowed to take breaks and to set their own schedules, when possible. A senior Army noncommissioned officer reported:

For the guys who worked Gander, there were days when they'd go in there and they would pick up an arm or a leg and they would have to walk outside, just sit and have coffee, and smoke a few cigarettes. On that particular day their psyche was not enough to deal with what they were seeing. The next day they were OK.

Grief and distress of workers are not usually observed on site. Participants reported often feeling concerned about how they would look in front of both supervisors and subordinates. In response to the question, "What if the leaders are not able to be macho that day? Do you lose faith in them?"

one worker, now an experienced team leader himself, said:

No! You *can't* lose faith in them. You have to talk to them and let them talk to you. Tell them that it's OK to get sick or say "Hey! I can't deal with it today" because tomorrow it might be our turn.

Such an attitude was not always present, however. We heard that some supervisors laughed at people when they said they "couldn't take it."

Humor was reported to be an important tension reducer during and after operations. For those whose duties were relatively public, humor tended to occur when the workers were together and out of public view. Some body handlers were frightened of "gallows humor," feeling it reflected that they had gone over the edge or had become too hardened.

The professional tasks of the personnel who handle the dead—doing what they were trained to do—facilitated their coping with the psychological distress. For nonprofessionals, the importance of each task often required definition and reinforcement by others. For most volunteers, the idea that they were performing a significant service for the dead, the families of the dead, and the community was essential. Curiosity and a sense of detective work helped maintain the behavior of medical examiners, police, and fire personnel, who also cautioned against becoming emotionally involved in their cases because their objectivity as witnesses would be questioned in court. Nevertheless, they were not able to avoid emotional involvement in some situations. Most forensic pathologists did not like to do autopsies on children, friends, family members, or in cases of death by torture in which the suffering prior to death was obvious. The mortician strives to do everything right because of the sensitivities of the families and takes pride in cosmetic treatment of the deceased, in keeping with Cassem's (1978) observation that feelings of helplessness in the face of death can be decreased by working to provide something memorable for the survivors.

The leader and the professional work group were emphasized as sources of support during difficult operations. The professional work group was the primary source of support in the groups we studied. The presence of an experienced co-worker, especially for the uninitiated, was important; with a partner, an individual could share the task and the associated feelings and decrease the sense of shock and surprise during the initial exposure to the bodies. The support (or lack of it) by senior leaders and the organization as a whole was always noticed. For example, volunteer body handlers at Dover Air Force Base during the Gander body-identification process were alert to whether their supervisor visited their area of work or their senior commanders expressed support (*Maloney, 1988*).

After Exposure

Many of the personnel expressed the need for a postevent briefing or some other information before they left the disaster area. The transition from the mortuary after exposure was facilitated by a briefing in which workers could ask questions and leaders would provide information about the events and the community's reactions. At this time, statements of appreciation and recognition were highly valued. Some people reported needing help in the period (hours to days) shortly after exposure to the dead. Feelings of fatigue, irritability, and the need for a transition "back to the real world" were commonly expressed, as was the need for some time off after the job was over. Family and organizational support appeared critical during the transition period. If both the family and the primary work group were sensitive and caring, the participants were more likely to verbalize their feelings about what they had seen and done. Since most participants will not share everything with people who were not with them during the ordeal, it was helpful that those who conducted the debriefings were from the group who were in the mortuary.

Almost everyone viewed professional

counseling or psychiatric assistance, even if available through the organization, as unacceptable, in part, because of fears that he or she would be fired, could not successfully testify in court, or would be ridiculed by fellow workers. Most said they had not really felt the need for counseling at the time, but that they could have benefited from a brief talk about the experience, particularly if it involved the work group. Some even wished such a talk had been mandatory.

Social support from spouses was seen as important, but often not available. The spouses of some of the body handlers were unwilling to hear about the experiences, and other workers decided not to expose their spouses to this stress. One man reported that his wife required him to take his clothes off at the door and shower after any contact with remains. Others described their first (and sometimes only) attempt to tell their spouses how they felt about their work and reported that they were unlikely to repeat the experience.

Maloney (1988) and *Robinson (1988)* reported wide use of alcohol during a body-handling operation that lasted several weeks. The subjects in the current study also reported that alcohol use was common, both during long operations and in the postdisaster phase. Some said that large amounts could be consumed without intoxication, while others said that "getting smashed" was normal at the end of each day of an operation. In addition to the pharmacological effects, drinking provided a social context for the work group and the opportunity for mutual support.

Memorial services were common after disasters, some on the premises of the disaster, others away from it; the latter were often shown on television news. Some workers appreciated on-site services. Others found memorial services problematical; one man reported, "Memorial services interfere with coping. At that point it's no longer a job; it gets to be a name, a human being. It all comes together."

DISCUSSION

This article has described the stressors and coping strategies reported at different stages in the responses of disaster workers to traumatic death. To cope with these stressors, the workers tend to develop cognitive and behavioral distancing (avoidance) strategies, many of which seem to promote the use of denial as a "natural" defense mechanism. For example, not looking at the face, not learning the names of the dead, and otherwise avoiding situations that "humanize" the body appear to protect the workers. Intellectualization could be said to occur when the workers concentrate on the tasks at hand or think of the benefits of their work to the families and society. Such concentration was described by an Army non-commissioned officer, who called it "Putting on your game face. First I do this, then I do this, and so on."

In general, support systems appeared to facilitate coping, particularly within the work group and the workers' families, although the latter are much harder to enlist. Many workers did not talk to their spouses about what they did, but wished their spouses had been told the nature of their work. This deficit could be partly corrected by providing information to spouses and holding periodic meetings in which the concerns of spouses can be addressed.

The determinants of positive and negative reactions to trauma are unclear. For example, of the numerous strategies for coping with the stresses of body handling that were reported, most appeared to be effective in the short run, but the long-term consequences are not clear. It remains an open question when and under what circumstances an individual should be encouraged to talk or think about aspects of the disaster that he or she wishes to avoid. Both inexperienced and experienced people reported almost unanimously that they would volunteer again to work in a mortuary if another disaster occurred. They were proud of their

achievements and of having done an important job that others either could not do or would never have the opportunity to do. Most people do quite well following exposure to massive trauma (Ursano, 1987). An important theoretical, as well as practical, question is to understand how people use trauma to move toward health.

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